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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/776,550	02/02/2001	Jared Zerbe	1726.7220800	9988

25697 7590 07/31/2002
ROSS D. SNYDER & ASSOCIATES, INC.
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EXAMINER

LAU, TUNG S

ART UNIT PAPER NUMBER

2863

DATE MAILED: 07/31/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No. 09/776,550	Applicant(s) ZERBE ET AL. <i>ME</i>
Examiner Tung S Lau	Art Unit 2863

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 02/022001.
- 2a) This action is FINAL.
- 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-21 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-5, 7-15 and 17-21 is/are rejected.
- 7) Claim(s) 6 and 16 is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) Interview Summary (PTO-413) Paper No(s). _____
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other:

DETAILED ACTION

Claim objections

1. Claims 6 and 16 are objected as it containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The applicant did not disclose the capability of transmitting two bits of information simultaneously over a single conductor.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 9 is rejected under 35 U.S.C. 102(b) as being anticipated by Lacroix et al. (U.S. Patent 4,727,540).

Lacroix discloses a generating a transmit repeating pattern in a transmit circuit, transmitting the transmit repeating pattern to a receive circuit, generating repeating pattern in the receiving circuit, comparing transmit repeating pattern to the receive repeating pattern to obtain a comparison (col. 10, lines 3-65).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

a. Claims 1-5, 7-8, 10, 12-15 and 17-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lacroix et al. (U.S. Patent 4,727,540).

Lacroix discloses a method of evaluating a digital signaling system having a transmit circuit to transmit data input and output data, transmit repeating pattern, a receive circuit to receive a comparison signal, using shift register input output, feedback in both the receiving and transmitting circuit, capable of representing two bits of information, the output signal referenced to a ground voltage, output signal is a differential signal over two conductors (col. 10, lines 3-65), based on comparison (fig. 3), utilizing shift register, a feedback approach (fig. 1), adjusting receiver circuit, determining boundary value of receiver circuit, output is current (fig. 1-3)

Lacroix does not disclose the operating mode as a test mode, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Lacroix to have a test mode to be able to test for a status of the subject.

b. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lacroix as applied to claims above, and further in view of Bremer (U.S. Patent 6,160,790) and Iwata et al. (U.S. Patent 5,999,022).

The Lacroix disclose a method including the subject matter discussed above except a crosstalk cancellation and self-equalization, Bremer and Iwata disclose such application (Bremer col. 5, lines 43-62), to have an overlapping frequencies application (Bremer col. 2, lines 44-55), (Iwata, col.11, lines 15-28), to have a low power consumption system (col. 4, lines 21-25).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Lacroix to have the usage of crosstalk cancellation coefficient and self-equalization coefficient in order to have an overlapping frequencies application and to have a low power consumption system.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tung S Lau whose telephone number is 703-305-3309.

The examiner can normally be reached on M-F 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John S Hilten can be reached on 703-308-0719. The fax phone numbers

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for the organization where this application or proceeding is assigned are 703-308-5841 for regular communications and 703-308-5841 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

TL

July 12, 2002



**JOHN S. HILTEN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800**